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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,434	09/03/2003	Weibin Fei	WF-1-js-mv	5224

7590 06/17/2005  
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EXAMINER

ZANELLI, MICHAEL J

ART UNIT PAPER NUMBER

3661

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/654,434

Applicant(s)

FEI, WEIBIN

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 5/4,17/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-10 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10 and 12-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

EA

### DETAILED ACTION

1. This is responsive to the communications filed 5/4/05 and 5/17/05. Claims 1-3, 6-10 and 12-21 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 2, 3, 6-10 and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - A. Claim 1 has been amended to change the open ended transitional phrase “comprising” to the close ended transitional phrase “consisting”. Thus, the dependent claims cannot add additional elements besides those explicitly recited in claim 1 (MPEP 2111.03).
  - B. As per claims 2, 3, 6-10 and 18-21, the dependent claims impermissibly introduce additional elements to the device set forth in claim 1, thus making the scope of the claims indefinite.
  - C. All claims depending from a rejected base claim are also rejected as containing the same deficiencies.
4. Claims 1-3, 6-10, 12 and 14-21, as best interpreted given the deficiencies noted above, are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al. in view of Opel and St. Pierre et al.
  - A. As per claim 1, Razavi discloses a computer system for a vehicle as essentially shown in Fig. 2 whereby the system includes a processor (22) which is connected to an

automotive system of the vehicle (23); a display screen (35) for displaying information concerning the automotive system(s); and means for controlling functions of and operating the automotive system(s) based on displayed information (col. 2, lines 53-57; col. 7, lines 46-54; col. 11, lines 10-12). The claim has been amended to include a keyboard on the steering wheel, locating the computer between the driver and passenger seats and a display screen for displaying gauges associated with the vehicle. The claim has also been amended to use the transitional phrase “consisting”.

B. With regards to the location of the keyboard, at the time of applicant's invention it was well-known in the vehicle arts to locate user interfaces in or around the steering wheel to provide the driver easy access to vehicle controls as well as improve vehicle safety by reducing the need to remove one's hands from the steering wheel. For example, Opel discloses an interface (Figs. 1, 2) which locates alphanumeric keys and cursor control devices in the center of the steering wheel whereas St. Pierre discloses various cursor control and selection buttons arranged along the perimeter of the steering wheel (Figs. 1-5). One of ordinary skill in the art would have found it obvious to utilize these known arrangements of input devices located on the steering wheel in the vehicle computer system of Razavi because it would have placed the controls within easy access of the driver as well as improve overall vehicle safety by reducing the need to remove one's hands from the steering wheel. The location of the computer itself would have been dependent on the layout of the vehicle, ease of access and available mounting space.

C. With regards to the display, Razavi discloses a display screen (35) for displaying information concerning the automotive system(s) and means for controlling automotive

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system(s) based on displayed information (col. 2, lines 53-57; col. 7, lines 46-54; col. 11, lines 10-12). The display replaces those gauges normally found in the dashboard (col. 2, lines 48-57).

D. As per claims 2-3, 6-10 and 15-21, as above whereby Razavi further discloses a plurality of devices may be connected to the computer system (displays, microphone, internet access, GPS receiver, cellphone, video, memory devices, etc.) and can be controlled using input device(s) and information displayed on one or more display screens located in the vehicle as desired (Fig. 2; col. 2, lines 17-25, 48-57; col. 7, lines 7-19, 46-63; col. 8, lines 8-13; col. 10, lines 46-65; col. 11, lines 14-20).

E. As per claims 12 and 14, as noted above in paragraph B one of ordinary skill in the art would have found it obvious to utilize known arrangements of input devices located in and around the steering wheel because it would have placed the controls within easy access of the driver as well as improve overall vehicle safety by reducing the need to remove one's hands from the steering wheel.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al., Opel and St. Pierre et al. in view of Prince et al.

A. Razavi, Opel and St. Pierre are applied as noted above. The claimed invention differs in that the input device is designed to be operated by one's foot rather than one's hands/fingers. However, at the time of applicant's invention it was well-known in the computer interface arts to control a cursor and select displayed information using a foot operated mouse. For example, Prince discloses a foot operated mouse which allows one to control the movement of a cursor and select displayed items in a manner similar to a

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hand operated mouse. The obvious advantage of using a foot operated mouse is the ability to interact with the computer without requiring the use of one's hands. Using a foot operated mouse in the vehicle computer system of Razavi would have provided the same obvious advantages as locating the input devices on the steering wheel and would have provided an alternative thereto. One of ordinary skill in the art would have found it obvious to utilize the foot operated mouse in the vehicle computer systems of Razavi because it would have improved overall vehicle safety by reducing the need to remove one's hands from the steering wheel.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents disclose various vehicle computer system configurations.

7. **REMARKS**

A. The rejections in view of Beckert and Treyz have been withdrawn since these rejections are essentially repetitive of the rejections noted above relative to Razavi.

B. With regards to using the phrase "consisting" instead of "comprising", it is unclear to the examiner how the claims are now suddenly distinguishable over the prior art, which disclose each and every one of the claimed elements. In this particular art, the advantage of these vehicle computer systems is the ability to configure the system to include as many or as few interface devices/modules as desired. Applicant's own specification and claims suggest this versatility.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

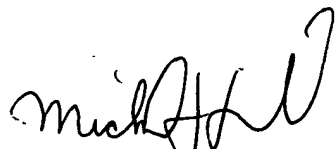
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969.

The examiner can normally be reached on Monday-Thursday 8:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz

  
MICHAEL J. ZANELLI  
PRIMARY EXAMINER